

SEQUENCE LISTING

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Hill, Caroline Susan
Howell, Michael Terence

<120> POLYPEPTIDES

<130> 12795-009US1

<140> US 10/069,410

<141> 2002-02-25

<150> PCT/GB00/03265

<151> 2000-08-25

<150> GB 9920000.8

<151> 1999-08-25

<160> 63

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary motif

<400> 1

Pro Pro Asn Lys

1

<210> 2

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary motif

<400> 2

Pro Pro Thr Lys

1

<210> 3

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary motif

<400> 3

Pro Pro Gln Lys

1

<210> 4

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 4

Pro Pro Asn Lys Thr Ile Thr Pro Asp Met Asn Val Arg Ile Pro Pro

1

5

10

15

Ile

<210> 5

<211> 4

<212> PRT

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<220>

<223> Exemplary motif

<400> 5

Ala Ala Asn Lys

1

<210> 6

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary motif

<400> 6

Gln Thr Asn Lys

1

<210> 7

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 7

Pro Pro Asn Lys Thr Ile Thr Pro Asp Met Asn Thr Ile Ile Pro Gln

1

5

10

15

Ile

<210> 8

<211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 8
 Pro Pro Asn Lys Ser Val Phe Asp Val Leu Thr Ser His Pro Gly Asp
 1 5 10 15

<210> 9
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 9
 Pro Pro Asn Lys Ser Ile Tyr Asp Val Trp Val Ser His Pro Arg Asp
 1 5 10 15

<210> 10
 <211> 4
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<220>
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<400> 10
 Pro Pro Ser Lys
 1

<210> 11
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
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<400> 11
 Pro Pro Asn Lys Thr Val Phe Asp Ile Pro Val Tyr Thr Gly His Pro
 1 5 10 15
 Gly

<210> 12
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 12

Pro Pro Asn Lys Thr Ile Thr Pro Asp Met Asn Thr Ile Ile Pro Gln
 1 5 10 15
 Ile

<210> 13

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 13

Pro Pro Asn Lys Thr Ile Gly Pro Glu Met Lys Val Val Ile Pro Pro
 1 5 10 15
 Leu

<210> 14

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 14

Pro Pro Asn Lys Ser Ser Lys Arg Gly Asn Thr Pro Pro Trp
 1 5 10

<210> 15

<211> 25

<212> PRT

<213> *Xenopus laevis*

<400> 15

Leu Leu Met Asp Phe Asn Asn Phe Pro Pro Asn Lys Thr Ile Thr Pro
 1 5 10 15
 Asp Met Asn Val Arg Ile Pro Pro Ile
 20 25

<210> 16

<211> 25

<212> PRT

<213> *Xenopus laevis*

<400> 16

His Ser Asn Leu Met Met Asp Phe Pro Pro Asn Lys Thr Ile Thr Pro
 1 5 10 15
 Asp Met Asn Thr Ile Ile Pro Gln Ile
 20 25

<210> 17

<211> 24

<212> PRT

<213> *Xenopus laevis*

<400> 17

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Leu Asp Asn Met Leu Arg Ala Met Pro Pro Asn Lys Ser Val Phe Asp
 1           5           10           15
Val Leu Thr Ser His Pro Gly Asp
                20

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<210> 18

<211> 24

<212> PRT

<213> *Mus musculus*

<400> 18

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Leu Asp Ser Leu Phe Gln Gly Val Pro Pro Asn Lys Ser Ile Tyr Asp
 1           5           10           15
Val Trp Val Ser His Pro Arg Asp
                20

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<210> 19

<211> 24

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 19

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Leu Asp Ala Leu Phe Gln Gly Val Pro Pro Asn Lys Ser Ile Tyr Asp
 1           5           10           15
Val Trp Val Ser His Pro Arg Asp
                20

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<210> 20

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 20

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Leu Lys Asn Ala Pro Ser Asp Phe Pro Pro Asn Lys Thr Val Phe Asp
 1           5           10           15
Ile Pro Val Tyr Thr Gly His Pro Gly
                20           25

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<210> 21

<211> 25

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 21

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His Ser Asn Leu Val Met Glu Phe Pro Pro Asn Lys Thr Ile Thr Pro

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1 5 10 15
 Asp Met Asn Thr Ile Ile Pro Gln Ile
 20 25

<210> 22
 <211> 24
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 22
 Leu Val Glu Tyr Asp Asn Phe Pro Pro Asn Lys Thr Ile Gly Pro Glu
 1 5 10 15
 Met Lys Val Val Ile Pro Pro Leu
 20

<210> 23
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 23
 Ile Thr Ser Asp Ala Tyr Ser Asp Ser Cys Pro Pro Pro Asn Lys Ser
 1 5 10 15
 Ser Lys Arg Gly Asn Thr Pro Pro Trp
 20 25

<210> 24
 <211> 48
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Exemplary motif

<221> VARIANT
 <222> 1, 34
 <223> Xaa = Asp or Glu

<221> VARIANT
 <222> 2
 <223> Xaa = hydrophobic residue

<221> VARIANT
 <222> 3-20,
 <223> Xaa = any amino acid
 0-15 or 18 Xaa may be present

<221> VARIANT
 <222> 27-33,
 <223> Xaa = any amino acid
 0-7 Xaa may be present

<221> VARIANT
 <222> 36-47,
 <223> Xaa = any amino acid
 0-8 or 12 Xaa may be present

<221> VARIANT
 <222> 23
 <223> Xaa = Asn or Thr

<221> VARIANT
 <222> 25
 <223> Xaa = Thr or Ser

<221> VARIANT
 <222> (26)...(0)
 <223> Xaa = Ile or Val

<221> VARIANT
 <222> (35)...(0)
 <223> Xaa = Met, Val or Ile

<400> 24
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 1 5 10 15
 Xaa Xaa Xaa Xaa Pro Pro Xaa Lys Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30
 Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Pro
 35 40 45

<210> 25
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 25
 Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
 1 5 10 15
 Leu Leu Met Asp Phe Asn Asn Phe Pro Pro Asn Lys Thr Ile Thr Pro
 20 25 30
 Asp Met Asn Val Arg Ile Pro Pro Ile
 35 40

<210> 26
 <211> 41
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 26
 Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
 1 5 10 15

Leu Leu Met Asp Phe Asn Asn Phe Ala Ala Asn Lys Thr Ile Thr Pro
 20 25 30
 Asp Met Asn Val Arg Ile Pro Pro Ile
 35 40

<210> 27
 <211> 46
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 27
 Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
 1 5 10 15
 Pro Glu Val Lys Asn Ala Pro Lys Asp Phe Pro Pro Asn Lys Thr Val
 20 25 30
 Phe Asp Ile Pro Val Tyr Thr Gly His Pro Gly Phe Leu Ala
 35 40 45

<210> 28
 <211> 46
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetically generated peptide

<400> 28
 Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
 1 5 10 15
 Pro Glu Val Lys Asn Ala Pro Lys Asp Phe Ala Ala Ala Lys Thr Val
 20 25 30
 Phe Asp Ile Pro Val Tyr Thr Gly His Pro Gly Phe Leu Ala
 35 40 45

<210> 29
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 29
 ctagccatta atcagattaa cggtgagcaa ttaga

35

<210> 30
 <211> 44
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 30

ccgactagta tctgctgccc taaaatgtgt attccatgga aatg 44

<210> 31
 <211> 43
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 31
 ccggctagct agggagagaa gggcagacat ttccatggaa tac 43

<210> 32
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 32
 ctagccagtc agcagctgac cggtagagcaa ttaga 35

<210> 33
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 33
 ctagccagtc atcagagtca cggtagagcaa gtcga 35

<210> 34
 <211> 35
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Primer

<400> 34
 ctagccatta atcagattaa cttgtagcaa gtaga 35

<210> 35
 <211> 29
 <212> DNA
 <213> Xenopus laevis

<400> 35
 cattaatcag attaacggtg agcaattag 29

<210> 36
 <211> 45
 <212> PRT

<213> *Xenopus laevis*

<400> 36

Lys	His	Ser	Gln	Met	Pro	Phe	His	Pro	Ser	Leu	Leu	Met	Asp	Phe	Asn
1				5					10					15	
Asn	Phe	Pro	Pro	Asn	Lys	Thr	Ile	Thr	Pro	Asp	Met	Asn	Val	Arg	Ile
		20						25					30		
Pro	Pro	Ile	Pro	Val	Ser	Ala	Pro	Ser	Asn	Asn	His	Ser			
		35					40					45			

<210> 37

<211> 45

<212> PRT

<213> *Danio rerio*

<400> 37

Ala	Asn	His	Ala	Lys	Ser	Thr	Met	Lys	Gln	Phe	Leu	Val	Glu	Tyr	Asp
1				5					10					15	
Asn	Phe	Pro	Pro	Asn	Lys	Thr	Ile	Gly	Pro	Glu	Met	Lys	Val	Val	Ile
		20						25					30		
Pro	Pro	Leu	Pro	Ser	Gln	Ser	Asn	Phe	Met	Met	Ser	Ser			
		35					40					45			

<210> 38

<211> 42

<212> PRT

<213> *Xenopus laevis*

<400> 38

Arg	His	Asn	Gln	Val	Ser	Met	His	Ser	Asn	Leu	Met	Met	Asp	Phe	Pro
1				5					10					15	
Pro	Asn	Lys	Thr	Ile	Thr	Pro	Asp	Met	Asn	Thr	Ile	Ile	Pro	Gln	Ile
		20						25					30		
Thr	Asp	Ala	Thr	Gly	Trp	Ser	Ser	Gln	Glu						
		35					40								

<210> 39

<211> 42

<212> PRT

<213> *Xenopus laevis*

<400> 39

Arg	Gln	Asn	Gln	Val	Thr	Met	His	Ser	Asn	Leu	Val	Met	Glu	Phe	Pro
1				5					10					15	
Pro	Asn	Lys	Thr	Ile	Thr	Pro	Asp	Met	Asn	Thr	Ile	Ile	Pro	Gln	Ile
		20						25					30		
Pro	Gly	Ala	Thr	Gly	Trp	Lys	Asn	Gln	Glu						
		35					40								

<210> 40

<211> 45

<212> PRT

<213> *Xenopus laevis*

<400> 40

Asp	Ser	Pro	Arg	Gly	Pro	Gln	Ser	Pro	Leu	Asp	Leu	Asp	Asn	Met	Leu
1				5					10					15	

Arg Ala Met Pro Pro Asn Lys Ser Val Phe Asp Val Leu Thr Ser His
 20 25 30
 Pro Gly Asp Leu Val His Pro Ser Phe Leu Ser Gln Cys
 35 40 45

<210> 41
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 41
 Glu Thr Arg Gly Pro Pro Gly Leu Leu Cys Asp Leu Asp Ala Leu Phe
 1 5 10 15
 Gln Gly Val Pro Pro Asn Lys Ser Ile Tyr Asp Val Trp Val Ser His
 20 25 30
 Pro Arg Asp Leu Ala Ala Pro Gly Pro Gly Trp Leu Leu
 35 40 45

<210> 42
 <211> 45
 <212> PRT
 <213> Mus Musculus

<400> 42
 Glu Ser Gln Gly Ser Gln Asp Leu Leu Cys Asp Leu Asp Ser Leu Phe
 1 5 10 15
 Gln Gly Val Pro Pro Asn Lys Ser Ile Tyr Asp Val Trp Val Ser His
 20 25 30
 Pro Arg Asp Leu Ala Ala Pro Ala Pro Gly Trp Leu Leu
 35 40 45

<210> 43
 <211> 47
 <212> PRT
 <213> Xenopus laevis

<400> 43
 Pro Gln Ile Pro Leu Thr Pro Lys Pro Pro Glu Leu Lys Asn Ala Pro
 1 5 10 15
 Ser Asp Phe Pro Pro Asn Lys Thr Val Phe Asp Ile Pro Val Tyr Thr
 20 25 30
 Gly His Pro Gly Phe Leu Ala Ser Gln Ser Leu Phe Ser Pro His
 35 40 45

<210> 44
 <211> 66
 <212> PRT
 <213> Xenopus laevis

<400> 44
 Ser Gln Met Pro Phe His Pro Ser Leu Leu Met Asp Phe Asn Asn Phe
 1 5 10 15
 Pro Pro Asn Lys Thr Ile Thr Pro Asp Met Asn Val Arg Ile Pro Pro
 20 25 30
 Ile Pro Val Ser Ala Pro Ser Asn Asn His Ser Arg Met Asn Val Phe
 35 40 45

Asn Thr Lys Glu Ala Gly Pro Leu Val Ser Leu Pro Glu Asp Val Tyr
 50 55 60
 Glu Glu
 65

<210> 45
 <211> 66
 <212> PRT
 <213> Danio rerio

<400> 45
 Ala Lys Ser Thr Met Lys Gln Phe Leu Val Glu Tyr Asp Asn Phe Pro
 1 5 10 15
 Pro Asn Lys Thr Ile Gly Pro Glu Met Lys Val Val Ile Pro Pro Leu
 20 25 30
 Pro Ser Gln Ser Asn Phe Met Met Ser Ser Ser Ser Pro Lys His Ile
 35 40 45
 Ala Cys Ser Val Gln Asn Met Ser Val Gln Thr Gln Pro Glu Leu Phe
 50 55 60
 Ala Thr
 65

<210> 46
 <211> 61
 <212> PRT
 <213> Xenopus laevis

<400> 46
 Asn Gln Val Ser Met His Ser Asn Leu Met Met Asp Phe Pro Pro Asn
 1 5 10 15
 Lys Thr Ile Thr Pro Asp Met Asn Thr Ile Ile Pro Gln Ile Thr Asp
 20 25 30
 Ala Thr Gly Trp Ser Ser Gln Glu Gly Thr Asp Ala Tyr Ser Thr Gln
 35 40 45
 Gly Ala Leu Pro Arg Ala Gln Cys Ser Pro Tyr Gly Gln
 50 55 60

<210> 47
 <211> 61
 <212> PRT
 <213> Xenopus laevis

<400> 47
 Asn Gln Val Thr Met His Ser Asn Leu Val Met Glu Phe Pro Pro Asn
 1 5 10 15
 Lys Thr Ile Thr Pro Asp Met Asn Thr Ile Ile Pro Gln Ile Pro Gly
 20 25 30
 Ala Thr Gly Trp Lys Asn Gln Glu Asp Ile Asn Thr Tyr Ser Thr Gln
 35 40 45
 Gly Ala Leu Ser Arg Ala Gly Cys Ser Ser Tyr Gly Leu
 50 55 60

<210> 48
 <211> 63
 <212> PRT
 <213> Xenopus laevis

<400> 48

Asn	Gln	Val	Ser	Met	His	Ser	Asn	Leu	Met	Met	Asp	Ile	Ser	Asn	Phe
1				5					10					15	
Pro	Pro	Thr	Lys	Thr	Ile	Thr	Ala	Asn	Met	Asn	Thr	Ile	Ile	Pro	Gln
			20					25					30		
Met	Pro	Gly	Ala	Ser	Cys	Trp	Ser	Ser	His	Glu	Ile	Asn	Ala	Tyr	Ser
		35					40					45			
Thr	Gln	Gly	Ala	Val	Pro	Met	Ala	Gly	Cys	Ser	Pro	Tyr	Gly	His	
	50					55					60				

<210> 49

<211> 64

<212> PRT

<213> *Xenopus laevis*

<400> 49

Asn	Gln	Val	Ser	Met	His	Ser	Asn	Ile	Met	Met	Asp	Phe	Ser	Asn	Phe
1				5					10					15	
Gln	Pro	Lys	Lys	Thr	Val	Thr	Pro	Asp	Met	Asn	Thr	Ile	Ile	Pro	Gln
			20					25					30		
Ile	Pro	Asp	Ala	Thr	Gly	Trp	Ser	Asn	Gln	Glu	Gly	Thr	Asp	Ala	Tyr
		35					40					45			
Ser	Thr	Gln	Glu	Ala	Leu	Pro	Arg	Ala	Gln	Cys	Ser	Pro	Tyr	Gly	His
	50					55					60				

<210> 50

<211> 60

<212> PRT

<213> *Xenopus laevis*

<400> 50

Gln	Gln	Met	Pro	Val	Gln	Pro	Met	Leu	Met	Asn	Ser	Phe	Gln	Thr	Asn
1				5					10					15	
Lys	Asn	Ile	Lys	Pro	Glu	Val	Tyr	Thr	Thr	Ser	Pro	Gln	Ile	Pro	Val
			20					25					30		
Ser	Thr	Thr	Ser	Ser	Gln	Val	Ser	Leu	Phe	Ala	Asn	Gln	Glu	Pro	Cys
		35					40					45			
His	Met	Ser	Thr	Thr	Gln	Gly	Gly	Thr	Tyr	Gly	Gln				
	50					55					60				

<210> 51

<211> 63

<212> PRT

<213> *Xenopus laevis*

<400> 51

Gln	Gln	Met	Pro	Ala	Gln	Pro	Met	Phe	Met	Asn	Ser	Phe	Gln	Thr	Asn
1				5					10					15	
Lys	Ile	Ile	Lys	Ser	Lys	Met	Asp	Thr	Thr	Ser	Pro	Pro	Ile	Pro	Val
			20					25					30		
Ser	Thr	Thr	Ser	Ser	His	His	Ser	Gln	Met	Ser	Leu	Phe	Ala	Gly	Gln
		35					40					45			
Asp	Pro	Cys	His	Met	Ser	Thr	Ala	Pro	Gly	Gly	Thr	Tyr	Gly	Gln	
	50					55					60				

<210> 52

<211> 344
 <212> PRT
 <213> *Xenopus laevis*

<400> 52
 Met Ser Phe Gly Leu His Pro Trp Asp Val Ala Phe Arg Pro Ser Pro
 1 5 10 15
 Pro His Asn Leu Glu Lys Lys Val Val Pro Pro Gly Ala Asp Arg Glu
 20 25 30
 Lys Ser Leu Pro Ser Pro Lys Glu Asp Ser Asp Gly Ala Arg Glu Pro
 35 40 45
 Asp Ser Thr Val Asp Leu Arg Lys Lys Asn Lys Lys Lys Asn Tyr
 50 55 60
 Gln Arg Tyr Ala Lys Pro Pro Tyr Ser Tyr Leu Ala Met Ile Ser Leu
 65 70 75 80
 Val Ile Gln Asn Ser Pro Glu Lys Arg Leu Lys Leu Ser Gln Ile Leu
 85 90 95
 Gln Asp Ile Ser Ser Leu Phe Pro Phe Phe Lys Gly Asn Tyr Gln Gly
 100 105 110
 Trp Lys Asp Ser Ile Arg His Asn Leu Ser Ser Asn Asp Cys Phe Arg
 115 120 125
 Lys Val Leu Lys Asp Pro Leu Lys Pro Gln Ala Lys Gly Asn Tyr Trp
 130 135 140
 Thr Val Asp Val Thr Arg Ile Pro Pro Asp Ala Leu Lys Leu Gln Asn
 145 150 155 160
 Thr Ala Val Thr Arg Gln Asp Leu Phe Pro Leu Asp Leu Ala Pro Tyr
 165 170 175
 Ile Leu His Gly Gln Pro Tyr Arg Ser Leu Glu Arg Leu Ser Ala Asn
 180 185 190
 His Thr Arg Gly Arg Thr Thr Pro Arg Met Glu Pro Glu Val Gln Ile
 195 200 205
 Pro Val Ser Asp Pro Ala Val Ser Phe Pro Met Ile Leu Trp Asn Leu
 210 215 220
 Pro Thr Ser Tyr Ser Lys Cys Val Ala Pro Asn Val Val Ala Pro Pro
 225 230 235 240
 Ser Ile His Pro Leu Leu Leu Tyr Ser Asn Phe Pro Ser Ile Ser Ile
 245 250 255
 Tyr Asn Tyr Leu Pro Pro Pro Tyr Gly Ser Pro Val Tyr Ser Asp Arg
 260 265 270
 Arg Asp Leu Leu Ala Ser Gly Leu His Pro Gln Ile Pro Leu Thr Pro
 275 280 285
 Lys Pro Pro Glu Leu Lys Asn Ala Pro Ser Asp Phe Pro Pro Asn Lys
 290 295 300
 Thr Val Phe Asp Ile Pro Val Tyr Thr Gly His Pro Gly Phe Leu Ala
 305 310 315 320
 Ser Gln Ser Leu Phe Ser Pro His Leu Pro Thr Ala Thr Pro Pro Leu
 325 330 335
 Val Gly Tyr Arg Pro Ser Gly Leu
 340

<210> 53
 <211> 1035
 <212> DNA
 <213> *Xenopus laevis*

<400> 53
 atgtcttttg ggcttcaccc atgggatgtg gccttcagac cttcaccccc tcacaacctg

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gagaagaaag tcgtccccc aggggcccagac agagagaagt cgcttccttc ccccaaggag      120
gacagtgatg gggcccggga gcccgactcc actgtggatt tgaggaagaa gaacaagaag      180
aagaagaact accagagata cgccaagccc ccctattcct acctggccat gatctccctg      240
gtcatccaga actccccga gaagaggctc aaactctccc agatcctgca ggacatcagc      300
tctctgtttc cattcttcaa gggcaactac cagggtctga aggattccat tcggcataat      360
ttgtcttcca acgactgttt cagaaagggt ctgaaggatc cgctcaagcc acaggccaag      420
ggcaattact ggacagtaga cgtgaccggg atccccccag acgctttgaa gctccagaac      480
acggcgggtga cccggcagga cctgttcccc ctggacctgg cccctacat cctacatggg      540
cagccgtaca ggagtctgga gaggtctctg gccaatcaca cgagggggcg cacgaccccc      600
aggatggagc ctgaagttca gattccagtg tcagaccagc ctgtcagttt ccccatgatc      660
ctatggaatc tgccgacatc ctacagcaaa tgtgtggccc ccaatgtagt ggcccctccc      720
agcattcacc cctcttgtt gtactccaac ttcccttcca ttccattta tacctacctg      780
ccccgcctt atggcagccc cgtgtactca gacagacgag atcttcttgc ctccggcctg      840
caccaccaaa tccctctcac ccccaaacc ccagagctga agaacgcccc cagcgacttc      900
ccccccaaca agacagtgtt tgacatcccc gtctatactg gccaccggg gttccttgct      960
agccaaagct tgttcagccc acacttgccc acggctacac cccctcctg gggctaccgg     1020
ccatctgggc tatga                                     1035

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<210> 54
<211> 1278
<212> DNA
<213> Xenopus laevis

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<220>
<221> CDS
<222> (1)...(1575)

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<400> 54
atg tcc tcg ata ctt ccc ttc act ccc ccc att gtc aag agg ctg ctg      48
Met Ser Ser Ile Leu Pro Phe Thr Pro Pro Ile Val Lys Arg Leu Leu
  1             5             10             15

gga tgg aag aag gga gag cag aac gga caa gag gag aaa tgg tgc gag      96
Gly Trp Lys Lys Gly Glu Gln Asn Gly Gln Glu Glu Lys Trp Cys Glu
          20             25             30

aag gca gtg aaa agt ctg gtg aag aag ctg aag aag agc ggc cag ctg     144
Lys Ala Val Lys Ser Leu Val Lys Lys Leu Lys Lys Ser Gly Gln Leu
          35             40             45

gac gag ctg gag aag gca ctg acc acc cag agc atc agc acc aag tgc     192
Asp Glu Leu Glu Lys Ala Leu Thr Thr Gln Ser Ile Ser Thr Lys Cys
          50             55             60

atc acc atc ccc agg tct ctg gat ggg aga ctc cag gtg tcc cat cgt     240
Ile Thr Ile Pro Arg Ser Leu Asp Gly Arg Leu Gln Val Ser His Arg
          65             70             75             80

aag ggg ttg cct cat gtc ata tac tgc cgc ctc tgg agg tgg cca gat     288
Lys Gly Leu Pro His Val Ile Tyr Cys Arg Leu Trp Arg Trp Pro Asp
          85             90             95

ctg cac agt cac cac gag ctt cga gcc atg gag gtg tgt gaa tat gcc     336
Leu His Ser His His Glu Leu Arg Ala Met Glu Val Cys Glu Tyr Ala
          100            105            110

ttc agc atg aag aag gac gaa gtg tgt gtg aat cct tat cac tac cag     384

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Phe	Ser	Met	Lys	Lys	Asp	Glu	Val	Cys	Val	Asn	Pro	Tyr	His	Tyr	Gln		
		115					120					125					
aga	gtg	gag	act	cca	gtt	cta	cct	cct	gtg	ctg	gtt	cca	cga	aac	acc	432	
Arg	Val	Glu	Thr	Pro	Val	Leu	Pro	Pro	Val	Leu	Val	Pro	Arg	Asn	Thr		
	130					135					140						
gaa	att	ccg	gca	gaa	ttc	cct	tca	ctt	gat	gat	tac	agc	cat	tcc	att	480	
Glu	Ile	Pro	Ala	Glu	Phe	Pro	Ser	Leu	Asp	Asp	Tyr	Ser	His	Ser	Ile		
145					150					155					160		
ccg	gaa	aat	acc	aat	ttc	cca	gca	ggc	atc	gag	cca	cag	ata	aac	tac	528	
Pro	Glu	Asn	Thr	Asn	Phe	Pro	Ala	Gly	Ile	Glu	Pro	Gln	Ile	Asn	Tyr		
				165					170					175			
att	cca	gaa	acg	cct	cct	ccc	ggg	tac	ttg	agc	gaa	gat	ggg	gaa	aca	576	
Ile	Pro	Glu	Thr	Pro	Pro	Pro	Gly	Tyr	Leu	Ser	Glu	Asp	Gly	Glu	Thr		
			180					185					190				
agc	gac	caa	atg	aat	cac	agt	ata	gat	aca	ggg	tct	cca	aat	ctg	tca	624	
Ser	Asp	Gln	Met	Asn	His	Ser	Ile	Asp	Thr	Gly	Ser	Pro	Asn	Leu	Ser		
	195						200					205					
cca	aac	tct	atg	tct	cct	gct	cat	agc	aac	atg	gac	ctg	cag	cct	gtc	672	
Pro	Asn	Ser	Met	Ser	Pro	Ala	His	Ser	Asn	Met	Asp	Leu	Gln	Pro	Val		
	210					215					220						
aca	tac	tgc	gag	ccg	gcc	ttt	tgg	tgt	tcc	atc	tcc	tac	tat	gag	ctt	720	
Thr	Tyr	Cys	Glu	Pro	Ala	Phe	Trp	Cys	Ser	Ile	Ser	Tyr	Tyr	Glu	Leu		
225					230					235					240		
aac	caa	cgc	gta	ggg	gag	acg	ttc	cac	gct	tcc	cag	ccc	tcc	atg	aca	768	
Asn	Gln	Arg	Val	Gly	Glu	Thr	Phe	His	Ala	Ser	Gln	Pro	Ser	Met	Thr		
				245					250					255			
gtg	gat	gga	ttc	acc	gat	cct	tcc	aac	tct	gaa	cgt	ttc	tgc	ctg	ggg	816	
Val	Asp	Gly	Phe	Thr	Asp	Pro	Ser	Asn	Ser	Glu	Arg	Phe	Cys	Leu	Gly		
			260					265					270				
ctg	ttg	tcc	aac	gta	aat	cgg	aat	gca	gct	gtg	gag	ctg	aca	cgg	aga	864	
Leu	Leu	Ser	Asn	Val	Asn	Arg	Asn	Ala	Ala	Val	Glu	Leu	Thr	Arg	Arg		
			275				280					285					
cac	atc	ggg	aga	ggc	gtg	cgg	ctg	tat	tac	att	gga	ggg	gaa	gtg	ttt	912	
His	Ile	Gly	Arg	Gly	Val	Arg	Leu	Tyr	Tyr	Ile	Gly	Gly	Glu	Val	Phe		
	290					295					300						
gcc	gag	tgc	ctc	agt	gac	aat	gcc	ata	ttt	gta	cag	tcc	cca	aat	tgt	960	
Ala	Glu	Cys	Leu	Ser	Asp	Asn	Ala	Ile	Phe	Val	Gln	Ser	Pro	Asn	Cys		
305					310					315					320		
aac	cag	cgc	tac	ggg	tgg	cat	cct	gcc	aca	gtc	tgc	aag	att	cca	cca	1008	
Asn	Gln	Arg	Tyr	Gly	Trp	His	Pro	Ala	Thr	Val	Cys	Lys	Ile	Pro	Pro		
				325				330						335			
ggc	tgt	aac	ctg	aag	ata	ttt	aat	aac	cag	gag	ttt	gct	gct	ctt	ttg	1056	
Gly	Cys	Asn	Leu	Lys	Ile	Phe	Asn	Asn	Gln	Glu	Phe	Ala	Ala	Leu	Leu		

340	345	350	
gct cag tca gta aac cag ggc ttt gag gct gtg tat cag ctt acg agg			1104
Ala Gln Ser Val Asn Gln Gly Phe Glu Ala Val Tyr Gln Leu Thr Arg			
355	360	365	
atg tgc acc ata cgc atg agt ttc gtc aaa ggc tgg gga gcc gaa tac			1152
Met Cys Thr Ile Arg Met Ser Phe Val Lys Gly Trp Gly Ala Glu Tyr			
370	375	380	
agg cga cag act gtg act agc acc ccc tgc tgg atc gag ctg cac ttg			1200
Arg Arg Gln Thr Val Thr Ser Thr Pro Cys Trp Ile Glu Leu His Leu			
385	390	395	400
aac ggg ccc ttg caa tgg ttg gat aag gtt ctc act cag atg ggg tct			1248
Asn Gly Pro Leu Gln Trp Leu Asp Lys Val Leu Thr Gln Met Gly Ser			
405	410	415	
cca agt atc cgc tgc tcc agt gtt tct taa			1278
Pro Ser Ile Arg Cys Ser Ser Val Ser *			
420	425		

<210> 55

<211> 425

<212> PRT

<213> *Xenopus laevis*

<400> 55

Met Ser Ser Ile Leu Pro Phe Thr Pro Pro Ile Val Lys Arg Leu Leu			
1	5	10	15
Gly Trp Lys Lys Gly Glu Gln Asn Gly Gln Glu Glu Lys Trp Cys Glu			
20	25	30	
Lys Ala Val Lys Ser Leu Val Lys Lys Leu Lys Lys Ser Gly Gln Leu			
35	40	45	
Asp Glu Leu Glu Lys Ala Leu Thr Thr Gln Ser Ile Ser Thr Lys Cys			
50	55	60	
Ile Thr Ile Pro Arg Ser Leu Asp Gly Arg Leu Gln Val Ser His Arg			
65	70	75	80
Lys Gly Leu Pro His Val Ile Tyr Cys Arg Leu Trp Arg Trp Pro Asp			
85	90	95	
Leu His Ser His His Glu Leu Arg Ala Met Glu Val Cys Glu Tyr Ala			
100	105	110	
Phe Ser Met Lys Lys Asp Glu Val Cys Val Asn Pro Tyr His Tyr Gln			
115	120	125	
Arg Val Glu Thr Pro Val Leu Pro Pro Val Leu Val Pro Arg Asn Thr			
130	135	140	
Glu Ile Pro Ala Glu Phe Pro Ser Leu Asp Asp Tyr Ser His Ser Ile			
145	150	155	160
Pro Glu Asn Thr Asn Phe Pro Ala Gly Ile Glu Pro Gln Ile Asn Tyr			
165	170	175	
Ile Pro Glu Thr Pro Pro Pro Gly Tyr Leu Ser Glu Asp Gly Glu Thr			
180	185	190	
Ser Asp Gln Met Asn His Ser Ile Asp Thr Gly Ser Pro Asn Leu Ser			
195	200	205	
Pro Asn Ser Met Ser Pro Ala His Ser Asn Met Asp Leu Gln Pro Val			
210	215	220	
Thr Tyr Cys Glu Pro Ala Phe Trp Cys Ser Ile Ser Tyr Tyr Glu Leu			

```

225          230          235          240
Asn Gln Arg Val Gly Glu Thr Phe His Ala Ser Gln Pro Ser Met Thr
          245          250          255
Val Asp Gly Phe Thr Asp Pro Ser Asn Ser Glu Arg Phe Cys Leu Gly
          260          265          270
Leu Leu Ser Asn Val Asn Arg Asn Ala Ala Val Glu Leu Thr Arg Arg
          275          280          285
His Ile Gly Arg Gly Val Arg Leu Tyr Tyr Ile Gly Gly Glu Val Phe
          290          295          300
Ala Glu Cys Leu Ser Asp Asn Ala Ile Phe Val Gln Ser Pro Asn Cys
305          310          315          320
Asn Gln Arg Tyr Gly Trp His Pro Ala Thr Val Cys Lys Ile Pro Pro
          325          330          335
Gly Cys Asn Leu Lys Ile Phe Asn Asn Gln Glu Phe Ala Ala Leu Leu
          340          345          350
Ala Gln Ser Val Asn Gln Gly Phe Glu Ala Val Tyr Gln Leu Thr Arg
          355          360          365
Met Cys Thr Ile Arg Met Ser Phe Val Lys Gly Trp Gly Ala Glu Tyr
          370          375          380
Arg Arg Gln Thr Val Thr Ser Thr Pro Cys Trp Ile Glu Leu His Leu
385          390          395          400
Asn Gly Pro Leu Gln Trp Leu Asp Lys Val Leu Thr Gln Met Gly Ser
          405          410          415
Pro Ser Ile Arg Cys Ser Ser Val Ser
          420          425

```

<210> 56
 <211> 424
 <212> PRT
 <213> Homo sapiens

```

<400> 56
Met Ser Ser Ile Leu Pro Phe Thr Pro Pro Ile Val Lys Arg Leu Leu
 1          5          10          15
Gly Trp Lys Lys Gly Glu Gln Asn Gly Gln Glu Glu Lys Trp Cys Glu
          20          25          30
Lys Ala Val Lys Ser Leu Val Lys Lys Leu Lys Lys Thr Gly Gln Leu
          35          40          45
Asp Glu Leu Glu Lys Ala Ile Thr Thr Gln Asn Val Asn Thr Lys Cys
          50          55          60
Ile Thr Ile Pro Arg Ser Leu Asp Gly Arg Leu Gln Val Ser His Arg
          65          70          75          80
Lys Gly Leu Pro His Val Ile Tyr Cys Pro Val Arg Trp Pro Asp Leu
          85          90          95
His Ser His His Glu Leu Arg Ala Met Glu Leu Cys Glu Phe Ala Phe
          100          105          110
Asn Met Lys Lys Asp Glu Val Cys Val Asn Pro Tyr His Tyr Gln Arg
          115          120          125
Val Glu Thr Pro Val Leu Pro Pro Val Leu Val Pro Arg His Thr Glu
          130          135          140
Ile Pro Ala Glu Phe Pro Pro Leu Asp Asp Tyr Ser His Ser Ile Pro
          145          150          155          160
Glu Asn Thr Asn Phe Pro Ala Gly Ile Glu Pro Gln Ser Asn Ile Pro
          165          170          175
Glu Thr Pro Pro Gly Tyr Leu Ser Glu Asp Gly Glu Thr Ser Asp
          180          185          190
His Gln Met Asn His Ser Met Asp Ala Gly Ser Pro Asn Leu Ser Pro

```

	195						200				205				
Asn 210	Pro	Met	Ser	Pro	Ala	His 215	Asn	Asn	Leu	Asp	Leu 220	Gln	Pro	Val	Thr
Tyr 225	Cys	Glu	Pro	Ala	Phe 230	Trp	Cys	Ser	Ile	Ser 235	Tyr	Tyr	Glu	Leu	Asn 240
Gln	Arg	Val	Gly	Glu 245	Thr	Phe	His	Ala	Ser 250	Gln	Pro	Ser	Met	Thr	Val
Asp	Gly	Phe	Thr 260	Asp	Pro	Ser	Asn 265	Ser	Glu	Arg	Phe	Cys 270	Leu	Gly	Leu
Leu	Ser	Asn 275	Val	Asn	Arg	Asn 280	Ala	Ala	Val	Glu	Leu 285	Thr	Arg	Arg	His
Ile	Gly 290	Arg	Gly	Val	Arg	Leu 295	Tyr	Tyr	Ile	Gly 300	Gly	Glu	Val	Phe	Ala
Glu 305	Cys	Leu	Ser	Asp	Ser 310	Ala	Ile	Phe	Val	Gln 315	Ser	Pro	Asn	Cys	Asn 320
Gln	Arg	Tyr	Gly	Trp 325	His	Pro	Ala	Thr	Val 330	Cys	Lys	Ile	Pro	Pro	Gly
Cys	Asn	Leu 340	Lys	Ile	Phe	Asn	Asn 345	Gln	Glu	Phe	Ala 350	Ala	Leu	Leu	Ala
Gln	Ser	Val 355	Asn	Gln	Gly	Phe 360	Glu	Ala	Val	Tyr	Gln 365	Leu	Thr	Arg	Met
Cys	Thr 370	Ile	Arg	Met	Ser 375	Phe	Val	Lys	Gly	Trp 380	Gly	Ala	Glu	Tyr	Arg
Arg 385	Gln	Thr	Val	Thr	Ser 390	Thr	Pro	Cys	Trp	Ile 395	Glu	Leu	His	Leu	Asn 400
Gly	Pro	Leu	Gln	Trp 405	Leu	Asp	Lys	Val	Leu 410	Thr	Gln	Met	Gly	Ser	Pro
Ser	Ile	Arg	Cys 420	Ser	Ser	Val	Ser								

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<210> 57
<211> 472
<212> PRT
<213> Xenopus laevis
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<400>	57														
Met	Ala	Gly	Ser	Met	Ser	Ser	Ile	Leu	Pro	Phe	Thr	Pro	Pro	Val	Val
1				5					10					15	
Lys	Arg	Leu	Leu	Gly	Trp	Lys	Lys	Ser	Ala	Ser	Gly	Ser	Gly	Thr	Thr
			20					25					30		
Gly	Ala	Gly	Gly	Asp	Glu	Gln	Asn	Gly	Gln	Glu	Glu	Lys	Trp	Cys	Glu
		35					40					45			
Lys	Ala	Val	Lys	Ser	Leu	Val	Lys	Lys	Leu	Lys	Lys	Thr	Gly	Gln	Leu
	50				55						60				
Asp	Glu	Leu	Glu	Lys	Ala	Ile	Thr	Thr	Gln	Asn	Cys	Asn	Thr	Lys	Cys
65					70					75					80
Val	Thr	Ile	Pro	Ser	Thr	Cys	Ser	Glu	Ile	Trp	Gly	Leu	Ser	Thr	Ala
				85					90					95	
Asn	Thr	Ile	Asp	Gln	Trp	Asp	Thr	Thr	Gly	Leu	Tyr	Ser	Phe	Ser	Glu
			100					105					110		
Gln	Thr	Arg	Ser	Leu	Asp	Gly	Arg	Leu	Gln	Val	Ser	His	Arg	Lys	Gly
		115				120						125			
Leu	Pro	His	Val	Ile	Tyr	Cys	Arg	Leu	Trp	Arg	Trp	Pro	Asp	Leu	His
	130					135					140				
Ser	His	His	Glu	Leu	Lys	Ala	Ile	Glu	Asn	Cys	Glu	Tyr	Ala	Phe	Asn
145					150					155					160
Leu	Lys	Lys	Asp	Glu	Val	Cys	Val	Asn	Pro	Tyr	His	Tyr	Gln	Arg	Val

				165					170					175			
Glu	Thr	Pro	Val	Leu	Pro	Pro	Val	Leu	Val	Pro	Arg	His	Thr	Glu	Ile		
			180						185					190			
Leu	Thr	Glu	Leu	Pro	Pro	Leu	Asp	Asp	Tyr	Thr	His	Ser	Ile	Pro	Glu		
		195					200					205					
Asn	Thr	Asn	Phe	Pro	Ala	Gly	Ile	Glu	Pro	Gln	Ser	Asn	Tyr	Ile	Pro		
	210					215					220						
Glu	Thr	Pro	Pro	Pro	Gly	Tyr	Ile	Ser	Glu	Asp	Gly	Glu	Thr	Ser	Asp		
225					230					235					240		
Gln	Gln	Leu	Asn	Gln	Ser	Met	Asp	Thr	Gly	Ser	Pro	Ala	Glu	Leu	Ser		
			245						250					255			
Pro	Ser	Thr	Leu	Ser	Pro	Val	Asn	His	Leu	Asp	Leu	Gln	Pro	Val	Thr		
		260						265						270			
Tyr	Ser	Glu	Pro	Ala	Phe	Trp	Cys	Ser	Ile	Ala	Tyr	Tyr	Glu	Leu	Asn		
	275						280					285					
Gln	Arg	Val	Gly	Glu	Thr	Phe	His	Ala	Ser	Gln	Pro	Ser	Leu	Thr	Val		
	290					295					300						
Asp	Gly	Phe	Thr	Asp	Pro	Ser	Asn	Ser	Glu	Arg	Phe	Cys	Leu	Gly	Leu		
305					310					315					320		
Leu	Ser	Asn	Val	Asn	Arg	Asn	Ala	Thr	Val	Glu	Met	Thr	Arg	Arg	His		
			325						330					335			
Ile	Gly	Arg	Gly	Val	Arg	Leu	Tyr	Tyr	Ile	Gly	Gly	Glu	Val	Phe	Ala		
		340						345					350				
Glu	Cys	Leu	Ser	Asp	Ser	Ala	Ile	Phe	Val	Gln	Ser	Pro	Asn	Cys	Asn		
	355						360					365					
Gln	Arg	Tyr	Gly	Trp	His	Pro	Ala	Thr	Val	Cys	Lys	Ile	Pro	Pro	Gly		
	370					375					380						
Cys	Asn	Leu	Lys	Ile	Phe	Asn	Asn	Gln	Glu	Phe	Ala	Ala	Leu	Leu	Ala		
385					390					395					400		
Gln	Ser	Val	Asn	Gln	Gly	Phe	Glu	Ala	Val	Tyr	Gln	Leu	Thr	Arg	Met		
			405						410					415			
Cys	Thr	Ile	Arg	Met	Ser	Phe	Val	Lys	Gly	Trp	Gly	Ala	Glu	Tyr	Arg		
		420						425					430				
Arg	Gln	Thr	Val	Thr	Ser	Thr	Pro	Cys	Trp	Ile	Glu	Leu	His	Leu	Asn		
	435						440						445				
Gly	Pro	Leu	Gln	Trp	Leu	Asp	Lys	Val	Leu	Thr	Gln	Met	Gly	Ser	Pro		
	450					455					460						
Ser	Val	Arg	Cys	Ser	Ser	Met	Ser										
465					470												

<210> 58

<211> 467

<212> PRT

<213> Homo sapiens

<400> 58

Met	Ser	Ser	Ile	Leu	Pro	Phe	Thr	Pro	Pro	Val	Val	Lys	Arg	Leu	Leu		
1				5					10				15				
Gly	Trp	Lys	Lys	Ser	Ala	Gly	Gly	Ser	Gly	Gly	Ala	Gly	Gly	Gly	Glu		
		20						25				30					
Gln	Asn	Gly	Gln	Glu	Glu	Lys	Trp	Cys	Glu	Lys	Ala	Val	Lys	Ser	Leu		
	35					40					45						
Val	Lys	Lys	Leu	Lys	Lys	Thr	Gly	Arg	Leu	Asp	Glu	Leu	Glu	Lys	Ala		
	50				55					60							
Ile	Thr	Thr	Gln	Asn	Cys	Asn	Thr	Lys	Cys	Val	Thr	Ile	Pro	Ser	Thr		
65				70					75					80			
Cys	Ser	Glu	Ile	Trp	Gly	Leu	Ser	Thr	Pro	Asn	Thr	Ile	Asp	Gln	Trp		

				85				90					95				
Asp	Thr	Thr	Gly	Leu	Tyr	Ser	Phe	Ser	Glu	Gln	Thr	Arg	Ser	Leu	Asp		
			100					105					110				
Gly	Arg	Leu	Gln	Val	Ser	His	Arg	Lys	Gly	Leu	Pro	His	Val	Ile	Tyr		
			115					120					125				
Cys	Arg	Leu	Trp	Arg	Trp	Pro	Asp	Leu	His	Ser	His	His	Glu	Leu	Lys		
			130				135					140					
Ala	Ile	Glu	Asn	Cys	Glu	Tyr	Ala	Phe	Asn	Leu	Lys	Lys	Asp	Glu	Val		
145						150					155				160		
Cys	Val	Asn	Pro	Tyr	His	Tyr	Gln	Arg	Val	Glu	Thr	Pro	Val	Leu	Pro		
				165					170						175		
Pro	Val	Leu	Val	Pro	Arg	His	Thr	Glu	Ile	Leu	Thr	Glu	Leu	Pro	Pro		
			180					185					190				
Leu	Asp	Asp	Tyr	Thr	His	Ser	Ile	Pro	Glu	Asn	Thr	Asn	Phe	Pro	Ala		
			195				200					205					
Gly	Ile	Glu	Pro	Gln	Ser	Asn	Tyr	Ile	Pro	Glu	Thr	Pro	Pro	Pro	Gly		
			210			215					220						
Tyr	Ile	Ser	Glu	Asp	Gly	Glu	Thr	Ser	Asp	Gln	Gln	Leu	Asn	Gln	Ser		
225					230				235						240		
Met	Asp	Thr	Gly	Ser	Pro	Ala	Glu	Leu	Ser	Pro	Thr	Thr	Leu	Ser	Pro		
				245					250					255			
Val	Asn	His	Ser	Leu	Asp	Leu	Gln	Pro	Val	Thr	Tyr	Ser	Glu	Pro	Ala		
			260					265					270				
Phe	Trp	Cys	Ser	Ile	Ala	Tyr	Tyr	Glu	Leu	Asn	Gln	Arg	Val	Gly	Glu		
			275				280					285					
Thr	Phe	His	Ala	Ser	Gln	Pro	Ser	Leu	Thr	Val	Asp	Gly	Phe	Thr	Asp		
			290			295					300						
Pro	Ser	Asn	Ser	Glu	Arg	Phe	Cys	Leu	Gly	Leu	Leu	Ser	Asn	Val	Asn		
305					310					315					320		
Arg	Asn	Ala	Thr	Val	Glu	Met	Thr	Arg	Arg	His	Ile	Gly	Arg	Gly	Val		
				325				330					335				
Arg	Leu	Tyr	Tyr	Ile	Gly	Gly	Glu	Val	Phe	Ala	Glu	Cys	Leu	Ser	Asp		
			340				345						350				
Ser	Ala	Ile	Phe	Val	Gln	Ser	Pro	Asn	Cys	Asn	Gln	Arg	Tyr	Gly	Trp		
			355				360					365					
His	Pro	Ala	Thr	Val	Cys	Lys	Ile	Pro	Pro	Gly	Cys	Asn	Leu	Lys	Ile		
			370			375					380						
Phe	Asn	Asn	Gln	Glu	Phe	Ala	Ala	Leu	Leu	Ala	Gln	Ser	Val	Asn	Gln		
385					390					395					400		
Gly	Phe	Glu	Ala	Val	Tyr	Gln	Leu	Thr	Arg	Met	Cys	Thr	Ile	Arg	Met		
				405					410					415			
Ser	Phe	Val	Lys	Gly	Trp	Gly	Ala	Glu	Tyr	Arg	Arg	Gln	Thr	Val	Thr		
			420					425					430				
Ser	Thr	Pro	Cys	Trp	Ile	Glu	Leu	His	Leu	Asn	Gly	Pro	Leu	Gln	Trp		
			435				440					445					
Leu	Asp	Lys	Val	Leu	Thr	Gln	Met	Gly	Ser	Pro	Ser	Val	Arg	Cys	Ser		
			450			455					460						
Ser	Met	Ser															
465																	

<210> 59

<211> 25

<212> PRT

<213> *Xenopus laevis*

<400> 59

Gln Pro Met Leu Met Asn Ser Phe Gln Thr Asn Lys Asn Ile Lys Pro

1 5 10 15
Glu Val Tyr Thr Thr Ser Pro Gln Ile
 20 25

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<210> 60
<211> 6
<212> PRT
<213> Artificial Sequence
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<220>
<223> Synthetically generated peptide

<400> 60
Glu Phe Met Pro Met Glu
1 5

```
<210> 61
<211> 12
<212> DNA
<213> Artificial Sequence
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<220>
<223> Similar to half brachyvry binding site

```
<400> 61
aggtgtgaaa tt
```

```
<210> 62
<211> 10
<212> DNA
<213> Artificial Sequence
```

<220>
<223> Similar to ZFH-1 binding sequence

```
<400> 62
aggtagagcaa
10
```

```
<210> 63
<211> 16
<212> PRT
<213> Artificial Sequence
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<220>
<223> Synthetically generated peptide

<400> 63
Ser Lys Pro Thr Thr Lys Gln Arg Gln Asn Lys Pro Pro Asn Lys Pro
1 5 10